

# Meeting Minutes

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## Public Body Procurement Workgroup

### Meeting # 2

**Thursday, July 28, 2022, 9:30 a.m.**  
**Conference Rooms C, D, and E**  
**James Monroe Building**  
**101 N 14th St, Richmond, Virginia 23219**

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

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The Public Body Procurement Workgroup (the Workgroup) met in-person in Conference Rooms C, D, and E in the James Monroe Building in Richmond, Virginia, with Sandra Gill, Deputy Director of the Department of General Services, presiding. The meeting began with remarks from Ms. Gill, followed by public comment. Materials presented at the meeting are available through the [Workgroup's website](#).

Workgroup members and representatives present at the meeting included Sandra Gill (Department of General Services), Matthew James (Department of Small Business and Supplier Diversity), Joshua Heslinga (Virginia Information Technologies Agency), Lisa Pride (Virginia Department of Transportation), Jonathan Howe (Department of Planning and Budget), Patricia Innocenti (Virginia Association of Governmental Procurement), John McHugh (Virginia Association of State Colleges and University Purchasing Professionals), Leslie Haley (Office of the Attorney General), Kim McKay (House Appropriations Committee), and Adam Rosatelli (Senate Finance and Appropriations Committee). Joanne Frye, representing the Division of Legislative Services, was absent.

#### **I. Call to Order; Remarks by Chair**

***Sandra Gill, Deputy Director***  
**Department of General Services**

Ms. Gill called the meeting to order and asked each of the Workgroup's members and representatives to introduce themselves. Ms. Gill then reminded the Workgroup's members and representatives that they are welcome to ask the stakeholders questions as they provide their comments, and reminded them that this is their opportunity to obtain clarification on the issues before the Workgroup so that the Workgroup will have all of the information that it needs in order to make informed decisions and recommendations at the Workgroup's final meeting. She also requested the stakeholders to direct their comments to the Workgroup's members and representatives, and to be respectful of the other stakeholders when providing their comments.

## **II. Approval of Meeting Minutes from the July 14, 2022 Workgroup Meeting**

Mr. Heslinga made a motion to approve the meeting minutes from the July 14, 2022 meeting of the Workgroup. The motion was seconded by Ms. Pride and unanimously approved by the Workgroup.

## **III. Public Comment on SB 550**

Next, Workgroup heard public comment from stakeholders on SB 550. It began by hearing comments from stakeholders in support of SB 550.

The first stakeholder to comment in support of SB 550 was Lew Bryant with J.E. Liesfeld Contractor, Inc. Mr. Bryant shared that stakeholders began meeting to discuss the issues behind SB 550 in October 2021, which was several months before the start of the 2022 Regular Session of the General Assembly. He noted that after several rounds of discussion, there seemed to be no common ground among all of the stakeholders. As a result, the supporters of the ideas behind SB 550 then found themselves in front of the legislature lobbying for the bill during Session. He stated that he believes that the final version of SB 550 is fair to both subcontractors and general contractors, and appropriately reassigns the financial risks associated with construction. He noted that it has been suggested that there are problems with the language of the bill, but he stated that he disagrees with such suggestions. He stressed that the intent of the bill is to guarantee payment to subcontractors for work properly done. He urged the Workgroup, in whatever decision they may make, to keep the intent of the bill alive and not let it be diminished into something that is not effective and other than what was originally intended.

The second stakeholder to comment in support of SB 550 was Fred Coddling with the Iron Workers Employers Association (IWEA). He also spoke on behalf of the Alliance for Construction Excellence (ACE). He stated that nonpayment between general contractors and subcontractors is a frequent issue, and that it often arises in the context of nonpayment or extremely slow payment for change orders and retainage. He expressed that it is unfair that the payment of change orders and retainage puts all of the burden on the subcontractor. He noted that a number of other states have also addressed prompt pay issues, and that these are complicated issues that need to be addressed in order for small, minority, and disadvantaged subcontractors to be successful on public work in the Commonwealth. He stressed that state agencies are often the major culprit behind the nonpayment issues. He shared that his organization's recommendation to the Workgroup is that it initiate a study to determine how small businesses can be treated fairly in the payment for work done, for change orders, and for retainage. Mr. Coddling discussed the history of "pay-if-paid" and other clauses that disadvantage subcontractors that are included in contracts between general contractors and subcontractors, and noted how the General Assembly has taken action over the years to pass laws deeming such clauses void and unenforceable in order to protect subcontractors and their suppliers. He argued that SB 550 falls in line with those actions by the General Assembly.

The third stakeholder to comment in support of SB 550 was Paul Denham, the President and CEO of Southern Air. Mr. Denham explained that if companies such as his sign contracts with pay-if-paid condition precedent clauses, which are the subject of SB 550, they are giving away significant rights at the end of a job if something goes wrong. He stated that it is rare that something does in fact go wrong on a job and these clauses end up coming into play, but when it does, they cannot afford to have signed away their right to compensation. He stressed that the problem on a job that is causing nonpayment may not have even been as a result of something that his company did, but instead the result instead of something the general contractor or another subcontractor has done. He concluded his remarks by stating that he believes SB 550 is fair as written because it covers the responsibility on the owner to pay the general contractor and on the general contractor to pay the subcontractors.

The fourth stakeholder to comment in support of SB 550 was Joe Piacentino with Colonial Webb Contractors Co. He shared that his company works with both owners and general contractors on both public and private projects in Virginia. He stressed that if his company does not pay its employees weekly and their vendors timely, their employees will not report for work and the vendors will stop supplying the materials they need for their projects. Additionally, he stated that they often subcontract portions of their work to small, minority, and disadvantaged businesses, and his company cannot withhold payment to such businesses because such businesses do not have the cash flow to finance the work while everyone awaits payment from the general contractor. He stated that most of their customers pay them within a reasonable amount of time, but occasionally a general contractor will not pay them for months or even years, citing the contractual pay-if-paid condition precedent clause as the reason for not paying.

Mr. Piacentino explained that as a subcontractor, his company has no relationship with the project owner who ultimately funds the work. He stressed that general contractors are in the best position to vet the ability of an owner to pay, but, nevertheless, general contracts traditionally pass the risk of nonpayment by the owner down to the subcontractors who are doing the work. He further noted that when an owner runs out of money or cannot secure permanent financing to finish a project, by the time payment to the subcontractor becomes past due, the subcontractor typically has several months of work in place before the subcontractor is contractually permitted to stop work. He emphasized that SB 550 motivates the general contractor to do a better job of managing payment risk and stopping the subcontractor from working as soon as the owner stops funding the job. He acknowledged that on private work subcontractors have the option of filing a lien when there is nonpayment, but he stressed that pursuing the lien takes years of civil litigation during which the subcontractor must still cash flow the project.

Mr. Piacentino then discussed change orders. He explained that most contracts between subcontractors and general contractors require subcontractors to perform change order work under a construction change directive before the general contractor secures a change from the owner. He shared, as an example, that his company is currently working on a public project in Virginia on which they have done \$1.4 million worth of change order work directed by the general contractor. He stated that the general contractor is in a

dispute with the public owner about whether the work constitutes a change to their contract. Meanwhile, his company has funded the work for over a year without being paid in order to keep the job on schedule and install systems that will work in the building. He emphasized that if the general contractor is ultimately unable to negotiate a change order with the public owner, his company will have to seek recovery through arbitration. He stressed that SB 550 would have kept his company paid and kept the project moving, and would have motivated the general contractor to work harder with the owner to resolve their differences. He concluded his remarks by stressing that SB 550 is absolutely necessary in Virginia to ensure that subcontractors who actually do the work on a project get paid in a timely manner.

The final stakeholder to comment in support of SB 550 was Carson Rogers with Chewning + Wilmer, Inc., an electrical construction contractor and subcontractor that has been in business in Richmond, Virginia since 1924. He stated that there is no fair reason for pay-if-paid clauses in contracts between general contractors and subcontractors, and they simply serve the industry at a point above subcontractors. He stressed that the issue of the financial stability of a project is an issue that is not within the control of the projects' subcontractors. Like other commenters, he stated that his company cannot force pay-if-paid clauses down on his employees and suppliers, and stressed the importance of cash flow. Mr. Rogers emphasized that the supporters of SB 550 are simply asking for a fair contracting opportunity. He shared that during his career he has experienced very limited success in trying to negotiate with general contractors for better and fairer contract terms.

Mr. Rogers then discussed change orders. He explained that language in the contract between the general contractor and the subcontractor often permits the general contractor to require the subcontractor to change the work prior to the general contractor negotiating a proper contract amendment with the owner. He stressed that there are occasions where the general contractor may be at fault for directing the subcontractor to initiate the change in work. Mr. Rogers questioned the motivation of the general contractor to resolve disputes with owners over change orders, especially in situations where the general contractor may have been at fault.

Mr. Rogers concluded his remarks by reiterating that the supporters of SB 550 are simply asking to be paid for their work that has been properly and timely completed. He encouraged general contractors, going forward, to work with reputable vendors and properly vet them before entering into a contract with them.

The Workgroup then heard comments from stakeholders in opposition to SB 550. The only stakeholder to testify in opposition was Jack Dyer, President of the Virginia Contractor Procurement Alliance and Chairman of the Board of Gulf Seaboard General Contractors. Mr. Dyer stressed that he is very opposed to the bill. He began his comments by recalling testimony from Senator Bell, the patron of SB 550, during Session in which Senator Bell explained that SB 550 is targeted at large out-of-state general contractors who are coming into Virginia to do work and who are leaving without paying their subcontractors. Mr. Dyer stressed that Senator Bell acknowledged that there is not an

issue of nonpayment by Virginia companies. Mr. Dyer also referenced comments made by stakeholders in support of SB 550 earlier in the Workgroup meeting in which they stated that the issue of nonpayment between general contractors and subcontractors is rare.

Mr. Dyer then reiterated some of his prior comments from the Workgroup's previous meeting. He strongly emphasized his confusion as to why the General Assembly believes that it can overreach and get into the middle of a private contractual relationship between two private parties. He stressed that contracts are legal agreements entered into by the parties to the contract, and if one of the contracting parties does not like some or all of the terms of the contract, such party should not sign the contract. He also reiterated his previous comments that the issues of change orders and retainage, mentioned by several of the stakeholders who commented in support of SB 550, are not addressed by SB 550.

Next, Mr. Dyer expressed concern that the provisions of SB 550 will hurt small businesses. He stated that in light of the changes made by SB 550, general contractors are now going to become very selective about which subcontractors they will work with in order to mitigate their risk. He stressed that general contractors are going to contract only with subcontractors who can provide payment and performance bonds and who are capable of doing the work. Mr. Dyer further stated that SB 550 will hurt small general contractors because they do not have the cash flow to pay their subcontractors prior to receiving payment from the owner. He also expressed his concern that higher risk will mean higher costs across the board.

Mr. Dyer then addressed existing remedies for nonpayment by general contractors and made some recommendations for additional remedies that could be explored in lieu of the policy in SB 550. Mr. Dyer stressed that there are existing remedies for nonpayment by general contractors (e.g. filing a lawsuit for breach of contract in court, filing a lien, pursuing performance and payment bonds, etc.) and stressed that subcontractors need to utilize those remedies and take whatever action is needed to perfect their claims. He recommended that if subcontractors want to enhance their ability to resolve issues of nonpayment with general contractors, subcontractors should ask the General Assembly to enhance the laws governing those existing remedies rather than pursue the policy in SB 550. Mr. Dyer then highlighted another potential remedy for subcontractors to pursue if they have not been paid by general contractors. He explained that every contractor in Virginia is required to obtain a contractor's license from the Board of Contractors (the Board) at the Department of Professional and Occupational Regulation. He shared that both the Board's regulations and the Code of Virginia list certain acts that licensed contractors are prohibited from doing. He suggested strengthening those regulations and/or Code provisions to further prohibit licensed contractors from not paying their subcontractors. As a result, if a general contractor were to not pay a subcontractor, the subcontractor could file a complaint with the Board regarding nonpayment by the general contractor and the Board could revoke the general contractor's license. He emphasized that the threat alone of potentially losing their license may motivate general contractors to quickly and fairly resolve disputes over nonpayment.

Mr. Dyer concluded his remarks by emphasizing that as a general contractor for forty years, his company has paid their subcontractors and wants to maintain great relationships with their subcontractors. He stressed that they want to be a part of the solution for making sure that subcontractors get paid, but SB 550 is not the solution.

The Workgroup then heard comments from stakeholders who either support SB 550 in part and oppose it in part, or are neutral as to its provisions.

The first stakeholder to comment was Brandon Robinson with the Associated General Contractors of Virginia (AGCVA). He explained that AGCVA is a trade association that represents general contractors, specialty contractors, and anyone within the industry that works in commercial construction. He shared that from the beginning of the conversation on SB 550, AGCVA has acknowledged that nonpayment is an issue for subcontractors and has sought to find a solution to the problem that follows three principles – it (i) protects subcontractors, (ii) protects general contractors, and (iii) protects the freedom to contract as much as possible. He emphasized that those three principals have guided their efforts to try to find a reasonable solution that shares the risk.

Mr. Robinson highlighted that in trying to find a solution to the issue of nonpayment, it is first important to acknowledge the root of the issue. Candidly, he stated that the root cause of the issue lies with owners who do not pay. The issue then becomes how the nonpayment trickles down to the general contractor and subcontractors. Mr. Robinson shared that AGCVA has three suggestions for improving SB 550 or otherwise making changes to the law that could help to address the issue of nonpayment in a way that shares the risk throughout the parties involved. He stated that AGCVA arrived at these recommendations by bringing together their members, who are both subcontractors and general contractors, in a room multiple times to work through the issue and try to find solutions that they could all agree upon.

The first recommendation Mr. Robinson discussed is to provide contractors with the ability to fully analyze an owners' financial situation. He explained that SB 550 prohibits pay-if-paid clauses in contracts between general contractors and subcontractors, and this in turn shifts an undue portion of the financial risk of a construction project from owners and subcontractors to the general contractor. He argued that given this increased risk, general contractors should be given tools to vet an owners' financial situation as comprehensively as possible prior to committing to a contract. Additionally, Mr. Robinson suggested that general contractors could consider requiring a payment bond from owners to help mitigate their increased risk.

The second recommendation Mr. Robinson discussed pertains to the text of SB 550 itself and is more technical in nature. Mr. Robinson briefly explained that AGCVA believes the language in subsections B and C of § 11-4.6 needs to be made more consistent. Creating such consistency, he noted, would lead to more clarity and fairness in spreading the financial risk of nonpayment by the owner down throughout the tiers.

Finally, Mr. Robinson explained that the third recommendation is to amend Virginia's mechanics lien statute to make it a more accessible recourse for payment. He noted that in comparison to other states, Virginia's mechanics lien statute is unnecessarily limited. He stated that Virginia is the only state in the country that has a 150-day lookback period, and that this really limits the ability of subcontractors, especially those that might be on the jobsite early in a job, to perfect the lien. He shared that North Carolina, which is often pointed to as an example of a state that has prohibited pay-if-paid clauses since the late 1980s, has a longer timeline for their mechanics liens - they allow up to 120 days, whereas Virginia is capped at 90 days. Mr. Robinson concluded by emphasizing that these sets of recommendations represent ideas that all contractors could agree upon to enable the financial risk of a project to be shared more fairly throughout the tiers and prevent the issues that were the impetus for SB 550.

The next stakeholder to comment was Patrick Cushing with Williams Mullen, speaking on behalf of the American Institute of Architects of Virginia (AIA VA) and the American Council of Engineering Companies of Virginia (ACEC VA). Mr. Cushing referenced his prior comments at the Workgroup's previous meeting regarding his concerns about how some of the language in SB 550 applies on the design side of contracting, as well as his concerns regarding some discrepancies in the definitions that apply to § 2.2-4354 versus § 11-4.6. He shared that since the last meeting of the Workgroup, it became clear after a discussion among his organization's membership that if the intent of the bill is for it to only apply to the contractor community in terms of traditional construction (general contractor-subcontractor relationship) and not design services or the design vertical in design-bid-build scenarios, his organizations would like to make sure that such intent is clarified in the bill. He stated that there are going to be some situations in design-build and other alternative procurements in which a design firm may sit as a subcontractor or in the seat of the general contractor, and at this time his organizations are neutral on those substantive portions of the bill. They plan to stay engaged, however, to ensure that the language in this bill addresses what everyone believes it is intending to address.

Mr. Cushing concluded his remarks by sharing that he has heard varying interpretations and perspectives on what the provisions of SB 550 do and do not do, and to whom it does and does not apply. He suggested that it may be beneficial to have a presentation to the Workgroup outlining the provisions of the bill and their application to assist the Workgroup with understanding the bill and therefore being able to evaluate it. He reminded the Workgroup that the second enactment clause of SB 550 makes the Workgroup responsible for determining whether there needs to be any legislative changes to the bill.

The final stakeholder to comment on SB 550 was Doug Petersen, President of EE Reed Construction East Coast and the Chairman of the Board for the Association of Builders and Contractors of Virginia (ABC VA). Mr. Petersen shared that ABC VA represents the largest membership of contractors in their industry and they support SB 550. Nevertheless, he noted that some changes need to be made to the bill. He expressed concerns that the bill will have unintended consequences that could put companies out of business. Specifically, he stated that if general contractors are forced to pay their

subcontractors within 60 days, some contractors who have not yet received payment from the owner within that time frame will not have financial ability to make those payments and will be put out of business. He concluded his remarks by stressing that everyone needs to come together as an industry and reach a consensus on the language of the bill so that it protects all parties involved.

#### **IV. Public Comment on SB 575**

The Workgroup then heard public comment from stakeholders on SB 575.

The first stakeholder to comment in support of SB 575 was Cher Griffith Taylor, Senior Electric Vehicle Specialist with the Electrification Coalition, which she explained is a nonpartisan, nonprofit organization that advances policies and actions to accelerate the adoption of electric vehicles (EVs) in order to reduce the economic, public health, and national security risks caused by America's dependence on oil. Ms. Taylor noted that fleet managers prioritize costs as they assess which vehicles on their fleet should be replaced and which new ones to procure. She stressed that fleet managers' goal is to ensure that staff have access to vehicles they need in order to complete their daily tasks at maximum operational effectiveness while promoting fiscal responsibility by incurring the lowest overall cost. She stated that the Electrification Coalition supports data-driven decision making and appreciates the Workgroup's focus on total cost of ownership (TCO) calculations.

Ms. Taylor noted that TCO calculations support fleet managers' needs to consider the all-inclusive cost of vehicles, from their purchase price to vehicle maintenance and operation. She stated that EVs are superior to internal combustion engine vehicles (ICEVs) in terms of efficiency and operational costs. She explained that this is because electricity is domestically produced and relatively stable and low in price compared to oil, which is a price-volatile, global commodity, and because EVs have far fewer moving parts. She further explained that these operational savings extend over the life of the vehicle, but do not always offset the high upfront cost of EVs, which often imposes a barrier to adoption. As such, she stated that a TCO analysis is highly recommended prior to vehicle procurement because it can clearly highlight the total cost differences.

Ms. Taylor shared that Electrification Coalition is one of several entities that has developed a TCO tool. She stated that their tool is called the Dashboard for Rapid Vehicle Electrification, or the DRVE Tool, and is publicly available for no cost. She explained the DRVE Tool is highly customizable for users and supports comparisons between ICEVs and EVs for light-duty, heavy-duty, and medium-duty vehicles. She further explained that the DRVE Tool works by mapping each current vehicle to a user-defined electric vehicle and then providing a comprehensive TCO analysis that compares both vehicles' retail price, operational costs (which really focuses on fuel price versus electricity rates), depreciation, applicable taxes, fees, typical maintenance costs, and a variety of other factors over the service life of the vehicle. She stated that the results are expressed in nominal cost per mile, which is a uniform basis of measurement and comparison and which makes it easy for fleet managers to compare vehicles with



different characteristics. She also described some additional publicly available TCO calculators that are offered by other organizations.

Ms. Taylor noted that the shift to medium-duty and heavy-duty EVs is accelerating through improved technology, private sector investment, opportunities to capitalize in the competitive global market, and meeting federal and state climate goals, and as the market for medium-duty and heavy-duty EVs grows, these models will be incorporated into the DRVE Tool and other publicly available TCO calculators. She stressed that it is critical for fleets to use TCO calculators for medium-duty and heavy-duty vehicles because these assets typically have 10-year or longer retirement ages, which means that the decision to add ICEV assets into these vehicle classes will lock the fleet into unpredictable fuel procurement cycles.

Ms. Taylor concluded her remarks by stressing that the DRVE Tool is appropriate for use by state agencies because it was developed with public fleets in mind. She noted that it automatically pulls retail prices and technical specifications on both IVEVs and EVs from federal open source databases including the Department of Energy and the National Highway Traffic Safety Administration, and that it is capable of including in its analysis such factors as cash purchases, the terms of a lease agreement, state or local rebates or incentives, and the cost of EV charging infrastructure. She encouraged the Workgroup to review the tool and offered to provide a preview of it to the Workgroup's members.

The next stakeholder to comment in support of SB 575 was Lena Lewis, Energy and Climate Policy Advisor for the Virginia Chapter of the Nature Conservancy. She began her remarks by stating that the Nature Conservancy supports SB 575 because it is a fiscally-responsible way for the state to lead by example and in making the transition to EVs as they become economically feasible. Regarding SB 575's requirement that the Workgroup assess the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle, Ms. Lewis posed four questions to assist the Workgroup with its analysis. First, she suggested that the Workgroup consider whether it is appropriate to consider TCO at all when procuring medium-duty and heavy-duty vehicles. She stated that her answer to this question is "yes," because doing so is fiscally responsible. Second, she asked whether a TCO calculator should be used to compare different models of conventional diesel and gas-powered vehicles. She stated that her answer to this question is "yes" in light of the number of cost inputs and variables involved. Third, she asked whether the TCO calculator should have the capability of comparing the TCO of conventional vehicles to EVs. She answered in the affirmative, reasoning that if you are going to use a calculator, you might as well use one that is capable of comparing not only conventional vehicles to one another, but also comparing them to electric medium-duty and heavy-duty vehicles. Finally, she stated that if the answer to the first three questions is "yes," which TCO calculator should be used?

Ms. Lewis then recommended that the Commonwealth use the Electrification Coalition's DRIVE Tool for comparing the TCO between medium-duty and heavy-duty ICEVs and EVs. She stated that this tool stood out in her research of publicly available TCO tools for medium-duty and heavy-duty TCO tools as being up to the job and user friendly. She offered, however, to coordinate a stakeholder subgroup to evaluate TCO calculators for their ability to handle the specific characteristics of medium-duty and heavy-duty vehicles and make recommendations to the Workgroup.

Ms. Lewis concluded her remarks by stating that she does not expect that a TCO analysis will result in the procurement of electric medium-duty and heavy-duty vehicles very often in the first couple of years because the economics still typically favor conventional vehicles. She stated that it would be helpful for state agencies to begin using TCO calculators for medium-duty and heavy-duty vehicles now, though, because it would help them begin to get the hang of using them, provide opportunities for feedback to the software designers, and allow state agencies to recognize the financial trend as it starts to shift in favor of electric medium-duty and heavy-duty vehicles. She stressed that it would make financial sense for DGS to be ready to seize the moment as soon as the economics shift favorable towards electric medium-duty and heavy-duty vehicles and not years afterwards.

Finally, Chris Nolan with McGuire Woods Consulting commented on behalf of Volvo Trucks of North America. He did not take a position on the bill, but instead listed some factors that his client would like for the Workgroup to consider in deciding whether state agencies should be required to use a TCO calculator prior to purchasing or leasing medium-duty or heavy-duty vehicles. Mr. Nolan noted that Volvo employs around 3,700 people in Virginia, primarily in Roanoke and Dublin. He stated that in Roanoke, under the Mack brand, Volvo produces medium-duty trucks, and in Dublin, Volvo produces Class 8 heavy-duty trucks. He highlighted that the Dublin plant is the plant that produces all of Volvo Trucks' products for the North American market. As such, he stressed that Volvo is a very important asset to Virginia. He noted that Volvo sells both ICEVs and EVs, and began selling a heavy-duty EV product in 2021. He stated that Volvo believes that EVs are going to make up more of the medium-duty and heavy-duty market as time goes on, and as a company their goal is for 35 percent of their sales to be EVs by 2030. As such, they want EVs to be put in the best light possible and for there to be the fairest and most accurate comparison between ICEVs and EVs as possible.

He stressed that Volvo supports public and private buyers using a TCO calculator when deciding whether to electrify a fleet, provided that the TCO calculator provides a true comparison between ICEVs and EVs. He noted, however, that Volvo believes that there are significant differences between light-duty vehicles compared to medium-duty and heavy-duty vehicles, and that those differences may make it more difficult to obtain a true comparison between ICEVs and EVs when using a TCO calculator for medium-duty and heavy-duty vehicles. As such, Mr. Nolan explained that Volvo is the entity that asked for medium-duty and heavy-duty trucks to be broken out of SB 575 during Session, as well as for adding the language to the bill directing the Workgroup to assess whether it is

appropriate to require state agencies to use a TCO calculator prior to purchasing or leasing medium-duty or heavy-duty vehicles.

In describing the differences light-duty vehicles and medium-duty and heavy-duty vehicles, Mr. Nolan began by highlighting the differences in the markets for each type of vehicle. He stated that over 15 million light-duty vehicles were sold last year, and that over 400,000 of those were battery EVs. Regarding heavy-duty trucks, however, he stated that according to DMV data, 221,000 Class 8 heavy-duty trucks were sold last year, but less than one-hundred of those were EVs. He emphasized that the factors that are considered when deciding whether to buy a light-duty ICEV or EV are quite different from the factors that are considered when deciding whether to buy a diesel or electric medium-duty or heavy-duty vehicle. He noted that the decision regarding medium-duty and heavy-duty vehicles is largely dictated by the vehicle's intended use, and that when a person or a state agency purchases a heavy-duty truck, the truck is often configured for a very specific use. Additionally, with regards to state purchasing, Mr. Nolan questioned whether the state purchases large numbers of medium-duty and heavy-duty vehicles at one time like they do with light-duty vehicles, or whether the state purchases just one or two or a few medium-duty and heavy-duty vehicles at one time. The size of the procurements can affect the price the state pays for the vehicles.

Mr. Nolan then discussed the unique characteristics of medium-duty and heavy-duty vehicles that a TCO calculator would need to accommodate. He first mentioned charging infrastructure. He noted that there is a significant difference in the charging infrastructure needed for light-duty vehicles compared to the charging infrastructure needed for medium-duty and heavy-duty vehicles. He explained that it is relatively easy to set up a charging infrastructure to charge a light-duty car or truck overnight. With medium-duty and heavy-duty vehicles, however, he stated that it is important to have charging infrastructure that supports rapid charging. He noted that the cost for such infrastructure can begin at \$25,000 and that the state may have to work with the power company to ensure that the grid can support such infrastructure. He emphasized that this is a key difference between light-duty EVs and medium-duty and heavy-duty EVs, and he questioned whether this is something that TCO calculators account for. Mr. Nolan then discussed maintenance plans. He noted that in the market for heavy-duty EVs, manufacturers offer maintenance plans, through which the manufacturer takes on more responsibility for the maintenance of the vehicle, in an effort to make heavy-duty EVs more cost competitive. He said that such maintenance plans are a key selling-point, but there is an upfront cost for them. He questioned whether this cost is considered in TCO calculators. Next, he discussed the federal excise tax, which is 12 percent federal surcharge for Class 8 heavy-duty vehicles. He explained that he believes the state may be subject to this tax, and that this tax would significantly affect the cost heavy-duty EVs because they are on average two and one-half times more expensive than their diesel equivalents. He stressed that this added cost must be captured by a TCO calculator in order to have a true apples-to-apples comparison between heavy-duty diesel vehicles and heavy-duty EVs. Another difference he noted between medium and heavy-duty vehicles compared to light-duty vehicles is that there is a requirement to use diesel exhaust fluid to cut down on emission when filling up Class 7 and Class 8 trucks. Such cost would also

need to be reflected in a TCO calculator for medium-duty and heavy-duty vehicles. Additionally, he noted that EVs carry higher insurance costs, and such cost must also be reflected in the calculator. Finally, Mr. Nolan mentioned that Volvo would like to ensure that product lines and prices are accurately reflected in the TCO calculator. He stressed that the TCO calculator should be transparent, accurate, and fair to all manufacturers. He emphasized the importance of making sure that the TCO calculator has a complete, updated (perhaps even updated in real-time) list of the product lines and corresponding prices. He highlighted the difference between obtaining such data from pre-set inputs that are straight from publicly available data versus picking up the phone and calling the dealer to obtain such data based on the configuration that you intend for the use of the vehicle.

Mr. Nolan concluded his remarks by noting that these are the items that Volvo would like to see addressed if the state were to move in the direction of requiring agencies to use a TCO calculator prior to purchasing medium-duty and heavy-duty vehicles. He reiterated that Volvo supports the use of a TCO calculator as long as it is fair and accurate, and publicly available for validation by the original equipment manufacturer. He noted that Virginia may be the first state to require the use of a TCO calculator prior to purchasing medium-duty and heavy-duty vehicles, and, as such, Virginia may be in the position of setting a precedent for other states.

## **V. Discussion**

There was no discussion among the Workgroup members.

## **VI. Adjournment**

Ms. Gill adjourned the meeting at 10:56 a.m. and noted that the next Workgroup meeting is scheduled for Thursday, August 11, 2022 at 9:30 a.m. in Conference Rooms C, D, and E in the James Monroe Building in Richmond, Virginia.

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For more information, see the [Workgroup's website](#) or contact that Workgroup's staff at [pwg@dgs.virginia.gov](mailto:pwg@dgs.virginia.gov).

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